RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _08/466,38/C_

Source: _1FW/6_

Date Processed by STIC: _11/8/04_

ENTERED

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              RAW SEQUENCE LISTING           DATE: 11/08/2004
              PATENT APPLICATION:  US/08/466,381C      TIME: 16:21:47

              Input Set : A:\41426-C.txt
              Output Set: N:\CRF4\11082004\H466381C.raw
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 3  <110> APPLICANT: Israeli, Ron S.
 4         Heston, Warren D.W.
 5         Fair, William R.
 7  <120> TITLE OF INVENTION: PROSTATE-SPECIFIC MEMBRANE ANTIGEN
 9  <130> FILE REFERENCE: 1769/41426-C/JPW/CY
11  <140> CURRENT APPLICATION NUMBER: US 08/466,381C
12  <141> CURRENT FILING DATE: 1995-06-06
14  <150> PRIOR APPLICATION NUMBER: US 08/403,803
15  <151> PRIOR FILING DATE: 1995-03-17
17  <150> PRIOR APPLICATION NUMBER: PCT/US93/10624
18  <151> PRIOR FILING DATE: 1993-11-05
20  <150> PRIOR APPLICATION NUMBER: US 07/973,337
21  <151> PRIOR FILING DATE: 1992-11-05
23  <160> NUMBER OF SEQ ID NOS: 38
25  <170> SOFTWARE: PatentIn version 3.1
27  <210> SEQ ID NO: 1
28  <211> LENGTH: 2653
29  <212> TYPE: DNA
30  <213> ORGANISM: Human
32  <400> SEQUENCE: 1
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35  attggttcag tgcactctag aaacactgct gtggtggaga aactggaccc caggtctgga     120
37  gcgaattcca gcctgcaggg ctgataagcg aggcattagt gagattgaga gagactttac     180
39  cccgccgtgg tggttggagg gcgcgcagta gagcagcagc acaggcgcgg gtcccgggag     240
41  cccggctctg ctcgcgccga gatgtggaat ctccttcacg aaaccgactc ggctgtggcc     300
43  accgcgcgcc gcccgcgctg gctgtgcgct ggggcgctgg tgctggcggg tggcttcttt     360
45  ctcctcggct tcctcttcgg gtggtttata aaatcctcca atgaagctac taacattact     420
47  ccaaagcata atatgaaagc attttttggat gaattgaaag ctgagaacat caagaagttc     480
49  ttatataatt ttacacagat accacattta gcaggaacag aacaaaactt tcagcttgca     540
51  aagcaaattc aatcccagtg gaaagaattt ggcctggatt ctgttgagct agcacattat     600
53  gatgtcctgt tgtcctaccc aaataagact catcccaact acatctcaat aattaatgaa     660
55  gatggaaatg agattttcaa cacatcatta tttgaaccac ctcctccagg atatgaaaat     720
57  gtttcggata ttgtaccacc tttcagtgct ttctctcctc aaggaatgcc agagggcgat     780
59  ctagtgtatg ttaactatgc acgaactgaa gacttcttta attggaacg ggacatgaaa     840
61  atcaattgct ctgggaaaat tgtaattgcc agatatggga aagttttcag aggaaataag     900
63  gttaaaaatg cccagctggc aggggccaaa ggagtcattc tctactccga ccctgctgac     960
65  tactttgctc ctgggtgaa gtcctatcca gatggttgga tcttcctgg aggtggtgtc    1020
67  cagcgtggaa atatcctaaa tctgaatggt gcaggagacc ctctcacacc aggttaccca    1080
69  gcaaatgaat atgcttatag gcgtggaatt gcagaggctg ttggtcttcc aagtattcct    1140
71  gttcatccaa ttggatacta tgatgcacag aagctcctag aaaaaatggg tggctcagca    1200
73  ccaccagata gcagctggag aggaagtctc aaagtgccct acaatgttgg acctggcttt    1260
75  actggaaact tttctacaca aaaagtcaag atgcacatcc actctaccaa tgaagtgaca    1320
77  agaatttaca atgtgatagg tactctcaga ggagcagtgg aaccagacag atatgtcatt    1380
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 83 agaacaattt tgtttgcaag ctgggatgca gaagaatttg gtcttcttgg ttctactgag   1560
 85 tgggcagagg agaattcaag actccttcaa gagcgtggcg tggcttatat taatgctgac   1620
 87 tcatctatag aaggaaacta cactctgaga gttgattgta caccgctgat gtacagcttg   1680
 89 gtacacaacc taacaaaaga gctgaaaagc cctgatgaag gctttgaagg caaatctctt   1740
 91 tatgaaagtt ggactaaaaa aagtccttcc ccagagttca gtggcatgcc caggataagc   1800
 93 aaattgggat ctggaaatga ttttgaggtg ttcttccaac gacttggaat tgcttcaggc   1860
 95 agagcacggt atactaaaaa ttgggaaaca aacaaattca gcggctatcc actgtatcac   1920
 97 agtgtctatg aaacatatga gttggtggaa aagtttatg atccaatgtt taaatatcac    1980
 99 ctcactgtgg cccaggttcg aggagggatg gtgtttgagc tagccaattc catagtgctc   2040
101 cctttttgatt gtcgagatta tgctgtagtt ttaagaaagt atgctgacaa aatctacagt    2100
103 atttctatga aacatccaca ggaaatgaag acatacagtg tatcatttga ttcacttttt   '2160
105 tctgcagtaa agaattttac agaaattgct tccaagttca gtgagagact ccaggacttt    2220
107 gacaaaagca acccaatagt attaagaatg atgaatgatc aactcatgtt tctggaaaga    2280
109 gcattattg atccattagg gttaccagac aggccttttt ataggcatgt catctatgct    2340
111 ccaagcagcc acaacaagta tgcaggggag tcattcccag gaatttatga tgctctgttt    2400
113 gatattgaaa gcaaagtgga cccttccaag gcctggggag aagtgaagag acagatttat    2460
115 gttgcagcct tcacagtgca ggcagctgca gagactttga gtgaagtagc ctaagaggat    2520
117 tctttagaga atccgtattg aatttgtgtg gtatgtcact cagaaagaat cgtaatgggt    2580
119 atattgataa attttaaaat tggtatattt gaaataaagt tgaatattat atataaaaaa    2640
121 aaaaaaaaaa aaa                                                        2653
124 <210> SEQ ID NO: 2
125 <211> LENGTH: 750
126 <212> TYPE: PRT
127 <213> ORGANISM: Human
129 <400> SEQUENCE: 2
131 Met Trp Asn Leu Leu His Glu Thr Asp Ser Ala Val Ala Thr Ala Arg
132 1               5                   10                  15
135 Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly Gly Phe
136             20                  25                  30
139 Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser Ser Asn Glu
140         35                  40                  45
143 Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala Phe Leu Asp Glu
144     50                  55                  60
147 Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu Tyr Asn Phe Thr Gln Ile
148 65                  70                  75                  80
151 Pro His Leu Ala Gly Thr Glu Gln Asn Phe Gln Leu Ala Lys Gln Ile
152                 85                  90                  95
155 Gln Ser Gln Trp Lys Glu Phe Gly Leu Asp Ser Val Glu Leu Ala His
156                 100                 105                 110
159 Tyr Asp Val Leu Leu Ser Tyr Pro Asn Lys Thr His Pro Asn Tyr Ile
160         115                 120                 125
163 Ser Ile Ile Asn Glu Asp Gly Asn Glu Ile Phe Asn Thr Ser Leu Phe
164     130                 135                 140
167 Glu Pro Pro Pro Gly Tyr Glu Asn Val Ser Asp Ile Val Pro Pro
168 145                 150                 155                 160
171 Phe Ser Ala Phe Ser Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr
172                 165                 170                 175
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Input Set : **A:\41426-C.txt**
Output Set: **N:\CRF4\11082004\H466381C.raw**

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175 Val Asn Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met
176             180                 185                 190
179 Lys Ile Asn Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val
180             195                 200                 205
183 Phe Arg Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly
184         210                 215                 220
187 Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys
188 225                 230                 235                 240
191 Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Gly Val Gln Arg Gly
192             245                 250                 255
195 Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro Gly Tyr
196             260                 265                 270
199 Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly
200         275                 280                 285
203 Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys
204         290                 295                 300
207 Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg
208 305                 310                 315                 320
211 Gly Ser Leu Lys Val Pro Tyr Asn Val Gly Pro Gly Phe Thr Gly Asn
212             325                 330                 335
215 Phe Ser Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val
216             340                 345                 350
219 Thr Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro
220             355                 360                 365
223 Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe Gly
224         370                 375                 380
227 Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Ile Val Arg
228 385                 390                 395                 400
231 Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile
232             405                 410                 415
235 Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr
236             420                 425                 430
239 Glu Trp Ala Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala
240         435                 440                 445
243 Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val
244         450                 455                 460
247 Asp Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu
248 465                 470                 475                 480
251 Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu Ser
252             485                 490                 495
255 Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro Arg Ile
256             500                 505                 510
259 Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe Gln Arg Leu
260         515                 520                 525
263 Lys Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn
264         530                 535                 540
267 Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu
268 545                 550                 555                 560
271 Leu Val Glu Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val
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PATENT APPLICATION: **US/08/466,381C**   TIME: 16:21:47

Input Set : **A:\41426-C.txt**
Output Set: **N:\CRF4\11082004\H466381C.raw**

```
272                565                570                575
275 Ala Gln Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val
276                580                585                590
279 Leu Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala
280            595                600                605
283 Asp Lys Ile Tyr Ser Ile Ser Met Lys His Pro Gln Glu Met Lys Thr
284         610                615                620
287 Tyr Ser Val Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn Phe Thr
288 625                630                635                640
291 Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser
292             645                650                655
295 Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu
296            660                665                670
299 Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg
300         675                680                685
303 His Val Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser
304      690                695                700
307 Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp
308 705                710                715                720
311 Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala Ala
312             725                730                735
315 Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala
316             740                745                750
319 <210> SEQ ID NO: 3
320 <211> LENGTH: 8
321 <212> TYPE: PRT
322 <213> ORGANISM: Human
324 <400> SEQUENCE: 3
326 Ser Leu Tyr Glu Ser Trp Thr Lys
327 1               5
330 <210> SEQ ID NO: 4
331 <211> LENGTH: 15
332 <212> TYPE: PRT
333 <213> ORGANISM: Human
335 <220> FEATURE:
336 <221> NAME/KEY: MISC_FEATURE
337 <222> LOCATION: (6)..(7)
338 <223> OTHER INFORMATION: Xaa=unknown
341 <400> SEQUENCE: 4
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344 1               5                10                15
347 <210> SEQ ID NO: 5
348 <211> LENGTH: 7
349 <212> TYPE: PRT
350 <213> ORGANISM: Human
352 <400> SEQUENCE: 5
354 Phe Tyr Asp Pro Met Phe Lys
355 1               5
358 <210> SEQ ID NO: 6
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359 <211> LENGTH: 9
360 <212> TYPE: PRT
361 <213> ORGANISM: Human
363 <400> SEQUENCE: 6
365 Ile Tyr Asn Val Ile Gly Thr Leu Lys
366 1               5
369 <210> SEQ ID NO: 7
370 <211> LENGTH: 22
371 <212> TYPE: PRT
372 <213> ORGANISM: Human
374 <220> FEATURE:
375 <221> NAME/KEY: MISC_FEATURE
376 <222> LOCATION: (4)..(5)
377 <223> OTHER INFORMATION: Xaa=unknown
380 <400> SEQUENCE: 7
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W--> 382 **Phe Leu Tyr Xaa Xaa Thr Gln Ile Pro His Leu Ala Gly Thr Glu Gln**

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383 1               5                10                15
386 Asn Phe Gln Leu Ala Lys
387             20
390 <210> SEQ ID NO: 8
391 <211> LENGTH: 17
392 <212> TYPE: PRT
393 <213> ORGANISM: Human
395 <400> SEQUENCE: 8
397 Gly Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Asp Val
398 1               5                10                15
401 Lys
405 <210> SEQ ID NO: 9
406 <211> LENGTH: 17
407 <212> TYPE: PRT
408 <213> ORGANISM: Human
410 <400> SEQUENCE: 9
412 Pro Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val
413 1               5                10                15
416 Lys
420 <210> SEQ ID NO: 10
421 <211> LENGTH: 15
422 <212> TYPE: PRT
423 <213> ORGANISM: Human
425 <400> SEQUENCE: 10
427 Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg
428 1               5                10                15
431 <210> SEQ ID NO: 11
432 <211> LENGTH: 19
433 <212> TYPE: PRT
434 <213> ORGANISM: Human
436 <400> SEQUENCE: 11
438 Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile
439 1               5                10                15
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/08/2004
PATENT APPLICATION: **US/08/466,381C**   TIME: 16:21:48

Input Set : **A:\41426-C.txt**
Output Set: **N:\CRF4\11082004\H466381C.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 6,7
Seq#:7; Xaa Pos. 4,5
Seq#:12; Xaa Pos. 14,15
Seq#:13; N Pos. 12
Seq#:14; N Pos. 6
Seq#:15; N Pos. 12
Seq#:16; N Pos. 6
Seq#:17; N Pos. 3,6
Seq#:18; N Pos. 11,15
Seq#:19; N Pos. 3
Seq#:20; N Pos. 18
Seq#:23; N Pos. 9
Seq#:24; N Pos. 12
Seq#:25; N Pos. 9
Seq#:26; N Pos. 9
Seq#:27; N Pos. 82,83,84,193,196,197,217,218,219,232,233,237,238,253,254
Seq#:27; N Pos. 255,256,263,600,601,721,722,723,724
Seq#:28; N Pos. 224,255,412,413,414,433,520,521,536,537,538,539,540,541,542
Seq#:28; N Pos. 543
Seq#:29; N Pos. 214,377

VERIFICATION SUMMARY   DATE: 11/08/2004
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Input Set : **A:\41426-C.txt**
Output Set: **N:\CRF4\11082004\H466381C.raw**

```
L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:536 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:60
L:791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:180
L:793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:240
L:803 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:540
L:805 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:600
L:809 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:720
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:180
L:868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:240
L:872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:360
L:874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:420
L:876 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:480
L:878 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:540
L:907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:180
L:913 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:360
```